AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-28. (Cancelled).

29. (Current amended) An incandescence emitter for incandescence light sources, comprising an emitter body (F) to be brought to incandescence at an operating temperature by means of passage of electric current, the emitter body (F) extending between two electrodes (H), wherein on at least one surface of the emitter body (F) a micro-structure (R) is provided, operative to enhance absorbance for wavelengths belonging to the visible region of the spectrum, wherein

- said micro-structure (R) is at least partly made of a first material (Au) whose melting temperature is lower than the operating temperature of the emitter body (F), ~~and~~

- said electrodes (H) are made of a second material having a high melting point, such as tungsten,

- at least a substantial portion of the emitter body (F), including said micro-structure (R), is coated with a coating layer (OR) made of an oxide with high melting point ~~(OR)~~, such as a refractory oxide, said oxide being configured to preserve a profile of said microstructure (R) in case of melting of the ~~respective~~ first material (Au), consequent to the use of the emitter body (F) at an operating temperature exceeding the melting temperature of said first material (Au), and

wherein at least one of said emitter body (F), said electrodes (H) and said coating layer (OR) includes one throat or cavity (G) being open on the first material (Au) for receiving part of said first material (Au) in case of melting thereof.

30. (Current amended) An emitter as claimed in claim 29, wherein ~~said oxide (OR) is~~

~~arranged to preserve the profile of said microstructure (R) also from effects of evaporation of the respective material (W; Au; W, Au) at the operating temperature~~ said throat or cavity (G) is defined in at least one of said electrodes (H), at an interface region thereof between the first material (Au) and the second material.

31. (Current amended) An emitter as claimed in claim ~~29~~30, wherein the emitter body (F) is almost completely coated by said coating layer ~~refractory oxide~~ (OR) with the exception of respective interface regions between the first material (Au) and the second material of ~~areas for connection to~~ said electrodes (H) ~~of the emitter~~.

32. (Current amended) An emitter as claimed in claim 29, wherein ~~said micro structure (R) is made of a conductor, semiconductor or composite material (W; Au; W; Au) whose optical constants, combined with the shape of the micro structure (R), are such as to allow a higher luminous emission efficiency than a classic incandescence filament, said efficiency being defined as the ratio between the fraction or visible radiation emitted at the operating temperature in the interval 380 nm – 780 nm and the fraction of radiation emitted at the same temperature in the interval 380 nm – 2300 nm~~ said throat or cavity (G) is defined in said first layer (OR), at an interface region thereof between the first material (Au) and the oxide.

33. (Current amended) An emitter as claimed in claim 29, wherein said first material (Au) is selected from among conductor, semiconductor and composite materials.

34. (Current amended) An emitter as claimed in claim 29, wherein

- the emitter body (F) is formed by at least a first layer of conductor material (W), melting at higher temperature than the operating temperature of the emitter body (F), such as tungsten, and by a second layer made of the first material (Au) ~~selected among conductor, semiconductor and composite materials whose melting point is lower than the operating temperature of the~~

~~emitter body (F)~~, said second layer forming said micro-structure (R), and

- said throat or cavity (G) is defined in said first layer, at an interface region between the conductor material (W) of the first layer and the first material (Au) of the second layer.

35. (Current amended) An emitter ~~Emitter~~ as claimed in claim 29, wherein said micro-structure (R) is at least partly formed with a material selected from among gold, silver and copper.

36. (Current amended) An emitter ~~Emitter~~ as claimed in claim 29, wherein said a coating layer (OR) is made of a refractory oxide (OR) ~~is~~ selected from among ceramic base oxides, thorium, cerium, yttrium, aluminium or zirconium oxide.

37. (Current amended) An emitter as claimed in claim 29, wherein said micro-structure (R) is formed by a superficial micro-structure of the emitter body (F)~~, i.e., in the same material which constitutes the emitter body (F)~~.

38. (Current amended) An emitter as claimed in claim 29, wherein said micro-structure comprises a diffraction grating (R), having at least one of a plurality of micro-projections (R1, R2) and a plurality of micro-cavities (C), where the dimensions (h, D) of the pillar-like micro-projections (R1, R2) or the micro-cavities (C) and the period (P) of the grating (R) are such to

- enhance emission of visible electromagnetic radiation from the first material (~~W; Au; W,~~ Au) ~~constituting at least the micro-structure (R)~~, and/or

- reduce emission of infrared electromagnetic radiation from the first material (~~W; Au; W,~~ Au) ~~constituting at least the micro-structure (R)~~, and/or

- enhance emission of ~~the~~ infrared electromagnetic radiation from the first material (~~W; Au; W,~~ Au) ~~constituting at least the micro-structure~~ to a lesser extent with respect to the increase in visible emissivity.

39. (Current amended) An emitter as claimed in claim 38, wherein said grating (R) is obtained with

- a first layer made of a conductor material (W) melting at higher temperature than the operating temperature of the emitter body (F), the ~~first~~ conductor material of the first layer having a structured part,

- a ~~coating~~ second layer ~~(Au)~~ made of the first material (Au), which covers at least the structured part of said first ~~material (W)~~layer, the ~~coating layer being of a second~~ first material (Au) being selected among conductor, semiconductor or composite materials~~ melting at lower temperature than the operating temperature of the emitter body (F)~~,

where the ~~coating~~ second layer (Au) copies the profile of the structured part of the first ~~material~~ layer~~(W)~~, to form therewith said grating (R), and the ~~second~~ first material (Au) has a greater emission efficiency than the ~~first~~ conductor material (W) of the first layer, said efficiency being defined as the ratio between the fraction of visible radiation emitted at the operating temperature in the interval 380 nm - 780 nm and the fraction of radiation emitted at the same temperature in the interval 780 nm - 2300 nm.

40. (Current amended) An emitter as claimed in claim 38, wherein

- said grating (R) is obtained on the surface of a layer (Au) made of ~~a~~ the first ~~conductor, semiconductor or composite~~ material (Au)~~whose melting point is lower than the operating temperature of the filament (F)~~,

- said layer made of the first material (Au) is placed on a second conductor material (W) whose melting point is higher than the operating temperature of the emitter body (F),

where the first material (Au) has higher emission efficiency than the second conductor material (W), said efficiency being defined as the ratio between the fraction of visible radiation

emitted at the operating temperature in the interval 380 nm – 780 nm and the fraction of radiation emitted at the same temperature in the interval 380 nm – 2300 nm.

41. (Current amended) An emitter as claimed in claim 38, wherein said grating (R) is obtained with

- a first layer of refractory oxide (OR) having a structured part,

- a ~~coating~~ second layer made of the first material (Au) which covers at least the structured part of the first layer of refractory oxide (OR), the ~~coating layer being of a~~ first material (Au) being selected among conductor, semiconductor or composite materials ~~melting at lower temperature than the operating temperature of the emitter body (F)~~,

where the ~~coating~~ second layer made of the first material (Au) copies the profile of the structured part of the first layer of refractory oxide (OR), to form therewith said grating (R), and where the ~~coating~~ second layer made of the first material (Au) is in turn coated by an encapsulating layer constituted by refractory oxide (OR).

42. (Cancelled.)

43. (Previously presented) An emitter as claimed in claim 38, wherein the periodicity of the micro-projections (R1, R2) or of the micro-cavities (C) is of the order of the wavelength of visible radiation.

44. (Previously presented) An emitter as claimed in claim 38, wherein the periodicity of the micro-projections (R1, R2) or of the micro-cavities (C) is between 0.2 and 1 micron.

45. (Previously presented) An emitter as claimed in claim 38, wherein the height or depth of the micro-projections (R1, R2) or of the micro-cavities (C) is between 0.2 and 1 micron.

46. (Previously presented) An emitter as claimed in claim 29, wherein said micro-structure (R) is binary, i.e. with two levels.

47. (Previously presented) An emitter as claimed in claim 29, wherein said micro-structure (R) is multi-level, i.e. it has a projection with more than two levels.

48. (Previously presented) An emitter as claimed in claim 29, wherein said micro-structure (R) has a continuous projection.

49. (Previously presented) An emitter as claimed in claim 29, wherein it operates at a lower temperature than the melting point of the refractory oxide (OR).

50. (Previously presented) An emitter as claimed in claim 29, wherein it is configured as a filament or planar plate structured under the wavelength of visible light, and in that said micro-structure (R) is a two-dimensional grating of absorbing material (k>1).

51. (Currently amended) A method for constructing an incandescence light emitter to be brought to incandescence by passage of electric current, comprising the steps of:

~~a) constructing a template of porous alumina,~~

~~b) infiltrating the template of porous alumina with a material destined to constitute an incandescence emitter body (F), in such a way that the alumina structure serves as a mould for at least part of an anti-reflection micro structure (R) of the incandescence emitter body (F), said material (Au) having a melting temperature lower than the operating temperature at which the incandescence emitter body (F) is meant to be used,~~

~~c) depositing a refractory oxide (CR) onto the remaining part of the incandescence emitter body (F) destined to extend between two respective electrodes (H), said oxide being operative to preserve a profile of said microstructure (R) in case of melting of the respective material (Au), consequent to the use of the incandescence emitter body (F) at an operating temperature exceeding the melting temperature of said material (Au),~~

~~wherein the template of porous alumina is eliminated or else maintained prior to step c)~~a)

obtaining a filiform or laminar emitter body (F) to be brought to incandescence at an operating temperature by means of passage of electric current, the emitter body (F) being formed to have on at least one surface thereof a micro-structure (R) operative to enhance absorbance for wavelengths belonging to the visible region of the spectrum, said micro-structure (R) being at least partly made of a first material (Au) whose melting temperature is lower than the operating temperature of the emitter body (F),

b) obtaining a first and a second electrode (H), said electrodes (H) being made of a second material having a high melting point, such as tungsten,

c) connecting each electrode (H) to the emitter body (F), and

d) coating the emitter body (F) in which the anti-reflection micro-structure (R) has been formed with a coating layer (OR) of refractory oxide, said coating layer (OR) being operative to preserve a profile of said microstructure (R) in case of melting of the material (Au) thereof, consequent to the use of the emitter (F) at an operating temperature exceeding the melting temperature of said material (Au),

the method including forming in at least one of said emitter body (F), said electrodes (H) and said coating layer (OR) one throat or cavity (G) open on the first material (Au).

52. (Currently amended) A method as claimed in claim 51, ~~where~~ wherein

~~the step a) comprises the deposition of an aluminium film, with thickness in the order of one micron, on a suitable substrate and the subsequent anodisation thereof, said anodisation comprising at least:~~

~~-a first phase of anodisation of the alumina film;~~

~~-a phase of reducing the irregular alumina film obtained as a result of the first anodisation phase;~~

~~- a second phase of anodisation of the alumina film starting from the residual part of irregular alumina not eliminated by said reduction phase~~- step b) comprises forming said throat or cavity (G) in at least one of said electrodes (H), and

- step c) comprises connecting said one electrode (H) and said body (F) such that at an interface region between the first material (Au) and the second material said throat or cavity (G) is open on the first material (Au).

53. A method as claimed in claim 51, ~~for constructing an incandescence emitter capable of being brought to incandescence by passage of electric current, comprising the steps of:~~

~~- obtaining a filiform or laminar body of the material whereof the emitter is to be made (F), said material (Au) having a melting temperature lower than the operating temperature at which the emitter (F) is meant to be used;~~

~~- etching said body to form an anti-reflection micro-structure (R),~~

~~and coating the body (F) in which the anti-reflection micro-structure (R) has been formed with a refractory oxide (OR), said oxide being operative to preserve a profile of said microstructure (R) in case of melting of the material (Au) thereof, consequent to the use of the emitter (F) at an operating temperature exceeding the melting temperature of said material (Au)~~

wherein step d) comprises forming said throat or cavity (G) in said coating layer (OR) such that at an interface region between the first material (Au) and the refractory oxide said throat or cavity (G) is open on the first material (Au).

54. (Previously presented) An incandescent light source, comprising an incandescence light emitter body brought to incandescence by the passage of electric current, wherein said incandescence light emitter body (F) is as claimed in claim 29.

57.-58. (Cancelled).

59. (New) A method as claimed in claim 51, wherein step a) comprises

- forming the emitter body (F) by at least a first layer of conductor material (W), melting at higher temperature than the operating temperature of the emitter body (F), such as tungsten, and by a second layer made of the first material (Au), and

- defining said throat or cavity (G) in said first layer of conductor material (W) such that at an interface region between the first material (Au) and the conductor material (W) said throat or cavity is open on the first material (Au).

60. (New) An incandescence emitter for incandescence light sources, comprising an emitter body (F) to be brought to incandescence at an operating temperature by means of passage of electric current, wherein on at least one surface of the emitter body (F) a micro-structure (R) is provided, operative to enhance absorbance for wavelengths belonging to the visible region of the spectrum, wherein

- said micro-structure (R) is at least partly made of a material (Au) whose melting temperature is lower than the operating temperature of the emitter body (F), and

- at least a substantial portion of the emitter body (F), including said micro-structure (R), is coated with an oxide with high melting point (OR), such as a refractory oxide,

said oxide being configured to preserve a profile of said microstructure (R) in case of melting of the respective material (Au), consequent to the use of the emitter body (F) at an operating temperature exceeding the melting temperature of said material (Au).